

ABSTRACT

An epimorphin protein having action to induce differentiation of milk protein-producing cells into a branched luminal structure in Artiodactyls including cows and sheep and comprising an amino acid sequence set forth in SEQ ID NO: 1 in the Sequence Listing; and a gene encoding said protein are provided. The epimorphin protein of the present invention can be used as a medicament for Artiodactyls or an agent for modifying animal properties. For example, the protein acts to enlarge the mammary gland of cows or sheep to prevent the gland from clogging, thereby a yield of a desired protein secreted in the milk of the animal is increased.

FIG. 1 is a schematic diagram of the structure of the mammary gland of a cow or sheep.

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<p>(21) 国際出願番号 PCT/JP99/04479</p> <p>(22) 国際出願日 1999年8月20日(20.08.99)</p> <p>(30) 優先権データ 特願平10/233892 1998年8月20日(20.08.98) JP</p> <p>(71) 出願人 (米国を除くすべての指定国について) 住友電気工業株式会社 (SUMITOMO ELECTRIC INDUSTRIES, LTD.)[JP/JP] 〒541-0041 大阪府大阪市中央区北浜4丁目5番33号 Osaka, (JP)</p> <p>(72) 発明者; および</p> <p>(75) 発明者/出願人 (米国についてのみ) 津金沢恵子(TSUGANEZAWA, Keiko)[JP/JP] 〒244-8588 神奈川県横浜市栄区田谷町1番地 住友電気工業株式会社 横浜製作所内 Kanagawa, (JP)</p> <p>(74) 代理人 今村正純, 外(IMAMURA, Masazumi et al.) 〒104-0031 東京都中央区京橋1丁目5番5号 KRFビル5階 Tokyo, (JP)</p>		<p>(81) 指定国 AU, CA, NZ, US, 欧州特許 (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE)</p> <p>添付公開書類 国際調査報告書</p>
<p>(54)Title: <u>ARTIODACTYL EPIMORPHINE</u></p> <p>(54)発明の名称 偶蹄目エピモルフィン</p> <p>(57) Abstract</p> <p>A protein epimorphine having the amino acid sequence represented by SEQ ID NO:1 in Sequence Listing which has an effect of inducing the differentiation of milk protein-producing cells of artiodactyls (cow, sheep, etc.) into a branched duct structure; and a gene encoding this protein. This epimorphine is usable as a drug or a modifying agent for artiodactyls. By using it, for example, cow or sheep mammary glands can be thickened and plugging in mammary glands can be prevented so that the yield of a desired protein secreted into the animal milk can be elevated.</p>		